



**COLORADO DEPARTMENT OF HEALTH CARE  
POLICY AND FINANCING**

REPORT TO JOINT HEALTH AND HUMAN SERVICES COMMITTEE  
*STATUS OF PEDIATRIC HEALTH CARE QUALITY PERFORMANCE MEASURES*

C.R.S. 25.5-5-109.5(9)

JULY 1, 2009

Cc: Representative Sara Gagliardi, Vice-Chairman, House Health and Human Services Committee  
Representative Cindy Acree, House Health and Human Services Committee  
Representative Cheri Gerou, House Health and Human Services Committee  
Representative Daniel Kagan, House Health and Human Services Committee  
Representative John Kefalas, House Health and Human Services Committee  
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July 1, 2009

The Honorable Jim Riesberg, Chair  
House Health and Human Services Committee  
200 E. Colfax Avenue, Room 271  
Denver, CO 80203

Dear Representative Riesberg:

Enclosed please find the Colorado Department of Health Care Policy and Financing's submission to the House Health and Human Services Committee on progress in the development and implementation of Pediatric Clinical Standards that improve health outcomes.

Section 25.5-1-109.5, C.R.S. (2006) requires the Department to submit a report, by July 1 each fiscal year, assessing health outcomes for pediatric programs administered by the state department based on, but not limited to, clinical standards including immunization rates, medical home standards, clinical care guidelines, care coordination, case management, disease management, and coordination and integration of mental health services. The standards and methods shall be consistent with national guidelines and standards regarding the collection and analysis of health data, where feasible, and shall meet the federal reporting requirements established under Titles XIX and XXI of the federal "Social Security Act", 42 U.S.C. secs. 1396 and 1397.

The statute also requires the Department to recommend to the health and human services committees of the Senate and House of Representatives, or any successor committees, strategies to improve health outcomes.

Questions regarding this report should be addressed to Beverly Hirsekorn, Manager of Health Outcomes and Quality Management, at [Beverly.Hirsekorn@state.co.us](mailto:Beverly.Hirsekorn@state.co.us) or 303-866-6320.

Sincerely,

Joan Henneberry  
Executive Director

BH:JH/tr

Enclosure: Colorado Medicaid Clinical Standards Report

July 1, 2009

The Honorable Betty Boyd, Chairman  
Senate Health and Human Services Committee  
200 E. Colfax Avenue, Room 346  
Denver, CO 80203

Dear Senator Boyd:

Enclosed please find the Colorado Department of Health Care Policy and Financing's submission to the Senate Health and Human Services Committee on progress in the development and implementation of Pediatric Clinical Standards that improve health outcomes.

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The statute also requires the Department to recommend to the health and human services committees of the Senate and House of Representatives, or any successor committees, strategies to improve health outcomes.

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Sincerely,

Joan Henneberry  
Executive Director

BH:JH/tr

Enclosure: Colorado Medicaid Clinical Standards Report

## Clinical Standards Development

Last year was the first year that the Department of Healthcare Policy and Financing reported on C.R.S. Section 25.5-1-109.5, C.R.S. (2006). The report described the process that created the initial recommended clinical standards. The clinical experts, system experts, health policy experts and health agency experts from Colorado Clinical Guidelines Collaborative and the Performance Measure Advisory Group developed strategies and recommended measures that would be most representative of pediatric health outcomes as a starting point.

Ongoing work has occurred to ensure representative measures were included through a series of gauges:

- HEDIS (Health Effectiveness Data and Information Set), the nationally recognized benchmark for health care performance measures developed and maintained by the National Committee for Quality Assurance (NCQA), a not-for-profit organization committed to assessing, reporting on and improving the quality of health care
- The Colorado Department of Health Care Policy and Financing (Department) Departmental Balanced Scorecard, an internal department tool measuring program and individual employee efforts to impact positive health outcomes
- Performance measures that have been integrated into managed care contracts

Some proposed performance measures have outcomes. Other measures have preliminary data. A limited number of proposed measures either will not have outcomes until later in the year or adequate data sources have not yet been identified.

### **Measure #1**

*The percentage of children who turned two years old during the measurement year who had 4DTaP/DT, 3 IPV, 1 MMR, 3H influenza type B, 3 Hep B, and 1 VZV immunizations by the time period specified and by the child's second birthday (4:3:1:3:3:1)*

While Colorado has had poor immunization coverage and ranked 50<sup>th</sup> in 2003, most recent data has Colorado moving to 28<sup>th</sup> in 2006 with a coverage rate of 80.3 percent. In 2008, there were significant improvements to immunization rates approaching the high-performance level for managed care plans. Fee-for-service rates were somewhat lower. There has been dramatically improved participation in the Colorado Immunization Information System (CIIS). Eighty percent of Colorado children under age 6 now have at least two vaccines registered in CIIS, which is a nearly two-fold increase since 2004. The system consolidates immunization records from multiple providers and identifies children who are not up-to-date with their vaccinations. Coverage rates can be impacted when providers use the system to notify families whose children are overdue for their vaccination. As of 2007, CIIS had participation rates of 100 percent of publicly funded clinics, 70 percent of pediatric practices, and 25 percent of family practices (HEDIS Measure).

**Measure #2**

*The percentage of eligible adolescents who have received recommended MMR and Tdap boosters by their 15<sup>th</sup> birthday*

This measure was a proposed HEDIS Measure for 2008 but was subsequently suspended by NCQA anticipating review and redefinition of adolescent immunization requirements.

**Measure #3**

*Evidence of developmental screening using a standardized, validated instrument at 9, 18 and 24 (or 30) month visits; or three times by age 3 years*

Medicaid has made significant progress in this area. Colorado is a participant in the Assuring Better Child Development (ABCD) Grant through the Commonwealth Fund. This project has been aligned with the Medical Home effort where providers are required to use a developmental screen. As an example, in the fourth quarter of 2006, 582 screens had occurred but in the fourth quarter of 2008, 8,422 screens had occurred. The screen ratio in FY 2007-08 for children through age 2 is 100 percent, an increase of 5 percent over the previous year. Future efforts will attempt to narrow the data from a 0-5 year old population to more accurately describe the experiences for 9, 18 and 24 (or 30) month visits or three times by age 3 years.

**Measure #4**

*The percentage of children, 2-18 years of age, whose weight is classified based on BMI percentile for age and gender (provisional measure)*

The Colorado Department of Public Health and Environment found through its Colorado Child Health Survey, that the number of children that are obese and overweight has increased slightly. In 2008, Colorado's reported rates of obesity and overweight for children 1 to 14 years of age were 13.6 percent and 15.1 percent respectively. These figures are less than the national average of 19 percent for childhood obesity. Medicaid statistics are not differentiated in the survey. The same survey for 2006 determined that Hispanic children were twice as likely to be obese as Caucasian children.

**Measure #5**

*The percentage of infants with an oral health evaluation by a dentist or primary health provider before age 1 (between ages 6-12 months)*

Clinical guidelines created by the American Dental Association and American Academy of Pediatric Dentistry recommend that children should begin visits to the dentist by age 1 unless medically necessary for an earlier visit. Pediatricians generally concur with this standard unless they identify some atypical presentation that would require assessment or treatment. Data for this measure is not available and is unlikely to become available in a meaningful way unless general population clinical guidelines change to lower the recommended age for an oral health evaluation without medically necessary indicators.

**Measure #6**

*The percentage of children seen for routine preventive dental care every six months once a dental home is established (beginning at age 1)*

The Colorado Commission on Children's Dental Health reported that in "April 2000, nearly one-third of Colorado counties lacked access to dental services for low-income and at-risk populations; nine Colorado counties had no licensed dentists at all and an additional 10 counties had no dentists serving Medicaid-enrolled clients." The Commission also identified pediatric dentists as the most appropriate provider for this very young population. Again, in 2000, only 2.6 percent of practicing dentists had this expertise. Nationally the numbers of specialized providers have been declining. Medicaid is moving towards establishing Medical Homes for all children on Medicaid including a dental home policy. Medicaid baseline data is being collected currently and will be available for the first time in the fall of 2009.

**Measure #7**

*The percentage of children who have received protective sealants on their first permanent molars by age 6 (or when adequately erupted)*

Current available data sources do not break out specific preventive dental services; however, Medicaid can report on the total number of children that are eligible for Early Periodic Screening, Diagnosis and Treatment (EPSDT) that receive any preventive dental services. For children under age 6, the percentage of children receiving at least one preventive dental service has incrementally increased since FY 2005-06 through FY 2007-08 from 19.51percent to 23.45percent. Increasing attention to dental needs through Medical Home activities is expected to continue to increase this metric.

**Measure #8**

*The percentage of children who have received protective sealants on the second permanent molars by age 12 (or when adequately erupted)*

Similar to the previous measure, data is not yet available identifying specific preventive dental services. For children eligible for EPSDT, between the ages of 6 through 14, the percentage of children receiving at least one preventive dental service substantially increased from under age 6. The percentage has incrementally increased since FY 2005-06 through FY 2007-08 from 40.97 percent to 46.59 percent. The Medical Home initiative will likely support increased percentages in out years.

**Measure #9**

*The percentage of clients who were given a diagnosis of upper respiratory infection (URI) and were not dispensed an antibiotic prescription on or three days after episode date*

The last year that this data was reported as a HEDIS measure was in 2007. In that year, 9.3 percent of children served by Medicaid did not receive appropriate treatment. The HEDIS rate of appropriate treatment (90.7 percent) was higher than the 2006 HEDIS National Average Median of 82.4 percent. This measure has been replaced to explore alternate measures with opportunities for higher improvements for health outcomes. For children in the Colorado Child

Health Plan *Plus*, the weighted average measure exceeded the HEDIS National Median for 2006 for the appropriate treatment for children with upper respiratory infection.

**Measure #10**

*The percentage of clients who were diagnosed with pharyngitis, prescribed an antibiotic, and who received a group A streptococcus test for the episode*

The last year that this data was reported as a HEDIS measure was 2007. For that year, all children served by Colorado Medicaid received appropriate treatment more than the 2006 HEDIS National Median rate. More often, children served by managed care plans had appropriate treatment. This measure has been replaced to explore alternate measures with opportunities for higher improvements for health outcomes. The Colorado Child Health Plan *Plus* weighted average HEDIS measure outperformed the national 2006 HEDIS National Median.

**Measure #11**

*Child with asthma has received influenza immunization (done yearly)*

A data source has not yet been established for this measure.

**Measure #12**

*Child with persistent asthma is on an inhaled corticosteroid or controller medication (reviewed for compliance yearly)*

The Colorado Department of Public Health and Environment reported through its Colorado Child Health Survey on the numbers of Colorado children that use a rescue medication such as an Albuterol, Alupent, Ventolin, Proventil, Atrovent or Maxair inhaler. In 2007, 75.3 percent of respondents had such medications. In 2008, 66.2 percent reported having a rescue medication.

**Measure #13**

*Child with persistent asthma has an action plan (reviewed yearly)*

The Colorado Child Health Survey conducted by the Colorado Department of Public Health and Environment reported that 50.3 percent of respondents had an action plan for asthma management in 2007. The percentage of respondents with an action plan increased to 54.6 percent in 2008.

**Measure #14**

*Evidence of use of a standardized, validated ADHD screening tool to aid in diagnosis (Vanderbilt, Conners)*

Behavioral Health Organizations, under new contracts, are responsible to investigate the feasibility of collecting this data as a developmental measure as soon as possible. The Early Intervention Program administered through the Colorado Department of Human Services, Developmental Disabilities Division, uses the Parents Evaluation of Developmental Status (PEDS) for ADHD diagnosis. Medical Home providers use the Vanderbilt tool. Both tools are standardized and validated for ADHD screening.

**Measure #15**

*Initiation Phase: Percentage of children 6-12 years of age as of the Index Prescription Episode Start Date with an ambulatory prescription dispensed for an ADHD medication and who had one follow-up visit with a practitioner with prescribing authority during the 30-Day Initiation Phase*

Behavioral Health Organizations, under new contracts, are responsible to incorporate this data into a test measure that will require testing before implementation.

**Measure #16**

*Of the children who remained on an ambulatory prescribed ADHD medication for at least 210 days, the percentage of children 6-12 years of age as of the Index Prescription Episode Start Date who, in addition to the visit in the Initiation Phase, had at least two additional follow-up visits with a practitioner within 270 days (nine months) after the Initiation Phase Ends*

Behavioral Health Organizations, under new contracts, are responsible to incorporate this data into a test measure that will require testing before implementation. For children on Colorado Child Health Plan *Plus*, follow-up on prescribed medication for ADHD occurred more often than the HEDIS National Median.

**Measure #17**

*Percentage of recipients who receive age-appropriate well-child checks, including: vision, hearing, developmental, behavioral/mental health, oral health, newborn screening, immunizations (based on EPSDT or HEDIS well child schedule)*

Based on annual EPSDT participation for FY 2007-08, the total eligible children that received at least one initial or periodic screen, ages 0 through 20, was 55.7 percent. For 2008, children participating on the Colorado Child Health Plan *Plus* have had well-child checks based on the HEDIS well child schedule that were less than the HEDIS National Median.

**Measure #18**

*The rates at which children with specified chronic, disabling, or ambulatory care sensitive conditions are hospitalized*

Low birth weight is the only ambulatory care sensitive condition that is currently available. The Colorado rate per 100,000 for hospitalization for that group of children is 11.27 percent. This is higher than the AHRQ 2004 National Average of 6.26 percent, the most recent available national benchmark.

**Measure #19**

*Length of time on Medicaid*

The Department reported in FY 2007-08 that a child's average period of eligibility was 8.42 months. This was relatively consistent for the previous two years and across age groups, except for children under one year of age who had a significantly smaller period of eligibility.

**Measure #20**

*Identify the subgroup of children with Severe Emotional Disturbance (SED) and assess care quality in that group using the Department performance measures*

A data source has not yet been established for this measure.

**Measure #21**

*The percentage of children with a diagnosed mental health condition based on the DSM IV or the ICD 9 who received mental/behavioral health services in the past six months*

Behavioral Health Organizations, under new contracts, are responsible to incorporate this data into a test measure that will require testing before implementation.

**Measure #22**

*Evidence of psychosocial screening in all ages using a standardized, validated tool (e.g., PSC, GAPS)*

A data source has not yet been established for this measure.

**Measure #23**

*Depression management (effective acute phase treatment): Of adolescents started on medication, length of treatment with medication and percentage that were referred to a mental health provider*

A data source has not yet been established for this measure.

**Measure #24**

*Adolescent suicide attempt and completion rates (Track this measure if suicide attempt data is available (e.g., through Medicaid claims))*

Behavioral Health Organizations, under new contracts, are responsible to incorporate this data into an observational measure that will apply to a broad population; in this case, as it applies to the general behavioral health of the population. The Colorado Department of Public Health and Environment conducts a Colorado High School Survey on a number of health related topics including suicide. Its most recent published data, for 2007, reported that 9 percent of respondents actually attempted suicide one or more times during the past 12 months. The largest proportion of that group came from the 10<sup>th</sup> grade. The preponderance of children that responded positively also indicated their race/ethnicity as Hispanic/Latino. The data reported was unweighted and is a validated sample of Colorado High School students.

**Measure #25**

*Assess specific injury rates (specify ICD-9/10 and E-codes)*

The Colorado Health Information Dataset maintained by the Colorado Department of Public Health and Environment has this information through 2006. The data reported below is for

calendar year 2006. The data is broken down by age increments of less than 5, 5-9, 10-14, 15-19, and 20-24 years. Injuries are reported as “injury-related hospitalizations by unintentional” including “other injury”, transportation, motor vehicle traffic, other transportation, poisoning, fall, fire/burn, and natural/environmental. “Intentional injury hospitalizations” are reported as suicide/self-inflicted, assault/legal intervention, undetermined intent and firearm-related. The prevalence of unintended identifiable sources for injuries experienced by children less than 5 years of age is poisoning and falls. For children ages 5-9, 10-14, 15-19 and 20-24 years, the largest identifiable unintended injury source is transportation/motor vehicle. Intentional injuries occur most often as assault/legal intervention for children less than 5 and 5-9 years of age. Suicide/self-inflicted is the majority intentional injury category impacting older children, 10-14, 15-19 and 20-24 years of age.

## **Summary**

The Department appreciated the vision and effort of the Performance Measure Advisory Group (PMAG) in recommending the 25 measures. The PMAG also recognized limits and challenges in ascertaining appropriate data sources for several of the measures. Chart review will become less burdensome as health information technology becomes common practice. Budget challenges are likely to limit resource ability to extract and analyze Department data sources as resources are reallocated to maintain basic services.

The Department has made progress in linking data to the specified measures. It will continue to build these metrics into contracts with providers as well as mine encounter data to analyze the measures. There may be opportunities to enhance some measures or replace some measures with more revealing metrics. The Department expects that the Accountable Care Collaborative, an initiative striving to bring an outcomes-focused and whole-person centered focal point of care for every client in Fee-For-Service Medicaid, to integrate the PMAG recommendations into their quality activities to the full extent possible. Ultimately, it will be important to measure the health outcomes that services support and determine what interventions will be taken to improve the desirable outcome.